This article contrasts the sociodemographic characteristics of self-employed women and men in both incorporated and unincorporated businesses. An analysis of 1980 Public Use Microsample (PUMS) data reveals that neither Schumpeter's (1934) "default" theory nor Knight's (1933) "career" theory offers an adequate explanation of women's self-employment. Women's family characteristics, which represent both constraint and choice, are significant predictors of women's self-employment. Human capital characteristics, including education, age, and past work experience are significant predictors of both women's and men's self-employment status. Self-employment is presented as a form of contingent work, which affords women schedule flexibility.

Two Paths to Self-Employment?

Women's and Men's Self-Employment in the United States, 1980

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Self-employment is a widely shared American ideal. A national survey of adults in the U.S. workforce in 1980 showed that 57% of all working class persons, two thirds of all men, and slightly less than one half of all women would like to be self-employed some day (Steinmetz & Wright, 1989). Opinion polls are not the only barometer of recent preferences for self-employment, however. Although the number of nonfarm self-employed

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workers steadily declined between 1920 and 1970, Current Population Survey data show that the number of self-employed workers in the United States rose by more than 1.1 million between 1972 and 1979 and increased by 23% between 1976 and 1983 (Becker, 1984; Fain, 1980).

An even more notable trend is the rise in female self-employment. Between 1972 and 1979, female self-employment increased by 43%—or five times faster than male self-employment—and 12% above the increase in the number of women employed as wage and salary workers. The Social Security Administration similarly reported an increase in the female share of self-employment, rising from 12% in 1955 to 17% in 1975 to 29% in 1986 (Aronson 1991, p. 4). This sharp rise in women's self-employment is difficult to explain, especially from a purely economic vantage point, given that self-employed women's earnings are well below those of both female wage and salary workers and self-employed men—even when adjusted for differences in industry, occupation, and hours worked. (Aronson, p. xi; Brown, 1976). This raises two important questions: Who are these self-employed women, and how do they differ from the male self-employed? I will argue that neither of the two prevailing theories of self-employment—the default theory (Schumpeter, 1934) nor the career theory (Knight, 1933)—offers an adequate theory of women's self-employment. Rather, I will argue that self-employment, like part-time or home-based work, is a flexible work strategy adopted by women to accommodate the competing demands of family and paid employment. Accordingly, a theory of self-employment that applies to women must incorporate family characteristics including marital status, parental status, and ages of children. These familial characteristics represent both enhancements and constraints to women's employment decisions.

Although several sociological studies have examined the characteristics of self-employed women, few have expanded their analyses to compare the characteristics of self-employed women and men, nor have they attempted to link their empirical research to extant theories of self-employment. Empirical studies limited to samples of women only have shown that having preschool-age children (Connelly, 1992) and that being married with school-age children (MacPherson, 1988) increase the odds that a woman will work for herself. Neither study considered whether men's self-employment is affected by family characteristics, however. Although detailed bivariate analyses of self-employed women and men in 1975 and 1990 showed that a higher proportion of self-employed men than women are married, gender differences in the parental status of self-employed workers were not considered (Devine, 1994).

This article attempts to expand on past research by (a) identifying gender differences in the determinants of self-employment; (b) contrasting the determinants of both incorporated and unincorporated self-employment; and

(c) developing a theory of self-employment that is applicable to women's work experiences. The theories of Schumpeter (1934) and Knight (1933) are modified to include family variables as sources of constraint and choice. Moreover, the gender model (Loscocco, 1990) is used as a theoretical starting point, so several hypotheses are based on the assumption that family characteristics will have different effects on the work outcomes of men and women (Loscocco & Leicht, 1993).

Using 1980 U.S. Census data, I first compare the demographic, human capital, and family characteristics of self-employed and salaried men and women.[1] Next, logistic regression analyses reveal the determinants of men's and women's self-employment versus wage/salary employment in a private company. The hypothesis that self-employment is a strategy whereby educated married women are able to combine work with family responsibilities is confirmed by the data; advanced education, being married, and having preschool children each has a large and positive effect on the odds of women's self-employment. For men, however, human capital characteristics rather than family characteristics are the strongest predictors of self-employment. These patterns generally persist even when analysis is limited to specific occupational groups (i.e., executive, professional, sales and service workers).

Finally, a multinomial logit model compares the determinants of two distinct classes of self-employment; self-employment in an incorporated business and self-employment in an unincorporated business versus wage and salary work. The latter analysis affords us a way to evaluate the two prevailing theories of entrepreneurship: self-employment as a default for marginal workers or self-employment as a career option for the most able and ambitious. Prior research on self-employment has treated the self-employed as a homogeneous category. By further dividing the self-employed into the incorporated and unincorporated, it might be possible to better evaluate whether the self-employed have unique capabilities or whether they are incapable of finding profitable employment in the wage and salary sector. Admittedly, incorporation status is not a perfect proxy for "skilled" versus "unskilled" self-employment. Incorporation status is, however, associated with higher earnings and professional occupations because personal incorporation carries both tax advantages and some protection against malpractice suits (Aronson 1991, pp. 88-89).

THEORETICAL BACKGROUND AND HYPOTHESES

Two classical theories of entrepreneurship provide a framework for examining characteristics of the self-employed. On one hand, the self-employed

can be seen as persons with particular abilities and self-knowledge of these abilities motivates individuals to establish their own enterprises (Knight, 1933). Consistent with this theory, some authors have found that human capital variables including education, age, and past work experience have a positive effect on the odds of male self-employment. Borjas and Bronars (1989) found that college education and advanced chronological age increase the probability of a man's choosing self-employment over salaried work. Age is also a concomitant of past work experience, accumulation of sufficient amounts of start-up capital, and the establishment of an enduring professional reputation—attributes that may be crucial to the establishment of one's own business (Aronson, 1991, p. 23; Borjas, 1986). Devine's (1994) bivariate analysis of Current Population Survey data also showed that self-employed women, on average, are older and better educated than their salaried peers.

The contrasting perspective regards self-employment as a default option for those facing constraints to traditional wage and salary employment. The self-employed do not necessarily have unique abilities that differentiate them from individuals in wage and salary jobs but are merely responding to the structural constraints facing them (Schumpeter, 1934). In a pioneering study of self-employment, Phillips (1962) similarly concluded that self-employment would survive principally as a defense against unemployment or as a refuge for older workers, the disabled, and those with low personal productivity. This theory suggests that ethnic minorities, immigrants, the physically disabled, and those living in geographic areas with high unemployment may react to obstacles in the traditional wage and salary employment sector by forming their own businesses. Empirical support for this perspective is equivocal; analyses of national cross-sectional survey data in the United States and Great Britain estimated rates of self-employment to be highest among white immigrants (Borjas, 1986; Borjas & Bronars, 1989); the disabled and those with a work-limiting health condition (Fuchs, 1980; Quinn, 1980); those living in geographic areas or those formerly employed in industries with high unemployment rates (Johnson, 1981); and men whose past work histories included spells of unemployment, numerous job shifts, and low-paid wage work (Evans & Leighton, 1989). African Americans and other "visible minorities" are less likely than whites to work for themselves, however; consumer discrimination and limited access to capital are obstacles to minority self-employment (Borjas; Maxim, 1992).

These two competing theories of self-employment share two important similarities, however; both are implicitly based on the standard model of labor market participation, wherein individuals behave rationally to maximize their financial rewards, and both were formulated to explain men's

self-employment (Aronson, 1991, p. 21). I will argue that neither Schumpeter's (1934) constraint theory nor Knight's (1933) choice theory offers an adequate theory of women's self-employment. Rather, I will argue that self-employment offers women an adaptive alternative or "escape route" from less convenient or less flexible work arrangements in the wage and salary sector (Silver, 1989, p. 108). In other words, a new theory of women's self-employment can be developed, which draws both on the default and career theories. Although family characteristics—most notably, young children—place constraints on a woman's paid employment options, such human capital factors as education or the income of a spouse allow her to choose self-employment over less flexible salaried work. Women do not default to self-employment because they have no other options, as is suggested by Schumpeter's constraint theory. Rather, women—especially women with young children who have the resources to facilitate the starting of their own businesses (e.g., education and the second income of a spouse)—will opt for self-employment over wage and salary work because it allows more flexibility than traditional wage and salary employment and a greater degree of autonomy than other forms of contingent work, including part-time, shift, and temporary work.

One of the most consistent findings in the study of women's labor force participation is the constraining effect of young children on a woman's decision to work, hours worked per week, and occupation chosen (Presser & Baldwin, 1980). Occupations classified as more convenient, including employment close to home (Darian, 1975) and home-based work (Kraut & Grambsch, 1987), are filled at higher rates by women with young children. Similarly, "contingent" work, including part-time work or shift work (Presser & Baldwin) and temporary work is overwhelmingly done by married women with children (Christensen, 1987). Nearly 60% of all part-time workers in 1985 were married women living with their husbands. This is not surprising, given that part-time workers typically are not given discretionary company benefits, such as health insurance, paid sick leave, maternity leave, vacation time, or pension coverage. Likewise, temporary agencies, particularly those who hire clerical workers, more often fill their jobs with women than men. For many women, contingent work represents a work accommodation that serves their lifestyle and economic needs. Contingent work may fill a woman's desire for a flexible work schedule; may provide a supplemental income at times when one is necessary for married women; and may provide a more convenient option over full-time work (Christensen, 1987).

Self-employment is an occupational choice that is similar to shift work and home-based work in that it offers its incumbents schedule flexibility. Connelly and Rhoton's (1988, p. 225) qualitative analysis of female self-

employed direct sales workers showed that the women's entry into self-employment is explained by "occupational drift"; women choose this occupation due to its flexible schedule.

The costs of self-employment are particularly high for women, however, and as a result, I expect to find that human capital variables and characteristics associated with greater choice, such as being white, married, and educated also increase the odds that a woman will work for herself. The U.S. Small Business Administration documents that the average business receipts of women's sole proprietorships were only 27% of the average for men's sole proprietorships in 1980 (Loscocco & Robinson, 1991). Even among full-time year-round self-employed female workers, the earnings disadvantage persists. In 1980, roughly half of all full-time year-round self-employed women workers were employed in 2 of the 13 major census occupational groups: sales and services. Their earnings in these occupational groups were just 45% and 50%, respectively, of self-employed men and 95% and 85%, respectively, of salaried women in like occupations (Carr, 1993, pp. 47-52).

Moreover, given the sporadic and/or seasonal earnings of all self-employed workers, the lack of pension and health insurance benefits afforded to self-employed workers, and the earnings disparity between self-employed women and female wage and salary workers (Brown, 1976), self-employment may be an option only to those women who have the financial cushion of a spouse's income.[2] A similar hypothesis was supported in Kraut and Grambsch's (1987) study of home-based workers; because the earnings of home-based workers are significantly less than those of on-site workers, white married women and other persons with household incomes over and above their own earnings are more likely to work at home.

Because the majority of self-employed women held occupations in which on-the-job training or extensive work experience was not vital to job entry in 1980 (e.g., child care workers, hairdressers/cosmetologists, door-to-door sales) (Aronson, 1991; Connelly, 1992), I expect that women with no work experience or part-time work experience in 1975 will have been more likely than those with full-time experience in 1975 to work for themselves in 1980.[3] The well-documented earnings disadvantage associated with women's self-employment would likely be least attractive to women with the most extensive work experience. Additionally, limited work experience may open few doors for women in the wage and salary sector.

I also expect to find several similarities between the male and female self-employed. Specifically, I expect to replicate the widespread finding that advanced age and higher education will increase the odds of both men's and women's self-employment. The association between age, education, and self-employment among men is widely documented (Borjas & Bronars,

1989; Fain, 1980; Fuchs, 1980; Quinn, 1980),[4] and preliminary bivariate analyses by Devine (1994) also show evidence that higher education and advanced age are associated with women's self-employment.

Finally, I expect that the self-employed in incorporated and unincorporated businesses will differ in terms of age, past work experience, and health status. Characteristics associated with greater choice and opportunity are expected to predict self-employment in an incorporated business, and traits that constrain one's labor force decisions are expected to predict self-employment in an unincorporated business only. Personal incorporation has become popular among many self-employed professionals because of the tax advantages, including the ability to shelter retirement income contributions in Keogh-type pension plans and the exemption of business expenses from taxation. Incorporation may also have provided some protection against malpractice suits (Aronson 1991, pp. 88-89). Therefore, because legislation makes it profitable for business owners to incorporate and become "employees" of their own corporations, the self-employed with the highest earnings—typically those in professional and managerial occupations—stand to benefit the most from incorporating their businesses. Thus I expect to find that the odds of having one's own incorporated business will be positively affected by higher education and full-time past work experience. I also expect that being of the most advanced age (age 55-64) and having a disability reduce the odds of incorporating one's business. Given historical shifts in occupational structure, it is probable that the oldest self-employed are clustered in crafts and sales occupations, jobs that are more common among the self-employed in unincorporated businesses.[5]

DATA AND METHODS

This study uses data from a 1:1,000 nationwide sample of the Census of Population and Housing, 1980, *Public Use Microdata Sample* (PUMS) (*A*), prepared by the Bureau of the Census (1983). The analysis is limited to a subsample of 55,502 (22,403 women and 33,099 men) noninstitutionalized civilian persons, aged 18-64, who worked for more than one hour for pay in both 1979 and 1980. Only nonfarm wage and salary workers for private companies and self-employed workers in both nonfarm incorporated and nonfarm unincorporated businesses are included in the sample.

The analysis has three parts. First, demographic and labor supply characteristics of male and female self-employed and salaried workers are presented in Tables 1 and 2. Second, two logistic regression models separately estimate the determinants of men's and women's self-employment. The dependent

TABLE 1: Demographic Characteristics of Private Wage and Salary Workers and Self-Employed Workers in the United States, by Sex (%): 1980 (N = 55,502)

	Male Wage/Salary (n = 28,485)	Male Self-Employed (n = 4,614)	Female Wage/Salary (n = 21,115)	Female Self-Employed (n = 1,288)
Independent Variables				
Age				
18-24	10.4	3.3	13.8	3.0
25-34	32.5	23.6	30.7	23.1
35-44	23.9	27.2	23.6	30.7
45-54	19.5	25.2	19.0	23.0
55-64	13.7	20.7	12.9	20.3
Education				
< 12 years	21.4	28.5	18.6	14.4
12 years	36.8	18.7	45.6	38.0
13-15 years	20.4	19.6	22.8	25.5
16 years	11.9	13.2	8.2	12.6
17+ years	9.4	20.0	4.8	9.4
Race				
White	88.6	94.3	86.2	92.9
Non-white	11.4	5.7	13.8	7.1
Ethnicity				
Hispanic	5.7	3.4	4.9	3.3
Non-Hispanic	94.3	96.6	95.1	96.7
Civil status				
Born in U.S.	93.0	92.8	92.7	91.8
Immigrant	7.0	7.2	7.3	8.2
Marital status				
Never married	8.3	9.0	10.2	4.4
Currently married	86.0	89.6	69.8	79.6
Divorced/separated/				
widowed	5.7	5.4	20.0	16.0
Kids at home				
None	46.4	47.4	53.1	50.6
< 6 years only	14.3	9.5	8.7	6.8
6-17 years only	28.3	32.1	31.2	33.9
0-17 years	11.0	11.0	7.0	8.7

SOURCE: *Public Use Microdata Samples (A)*. U.S. Bureau of the Census (1983).Sample includes all civilian men and women aged 18-64 who worked as nonfarm wage and salary workers or nonfarm self-employed workers in 1979.

variable is the log-odds of a person's being a self-employed worker (incorporated or unincorporated) versus a wage/salary employee. It is based on the class of worker item in the PUMS and is operationalized as a dichotomous outcome (1 = *self-employed*, 0 = *employee*). This model replicates past studies by contrasting all self-employed workers with wage earners yet advances past

TABLE 2: Labor Supply and Contextual Characteristics of Wage and Salary Workers and Self-Employed Workers in the United States, by Sex (%): 1980 (*N* = 55,502)

	Male Wage/Salary (n = 28,485)	Male Self-Employed (n = 4,614)	Female Wage/Salary (n = 21,115)	Female Self-Employed (n = 1,288)
Independent Variables				
Hours worked per week				
< 15	1.4	2.3	4.3	11.5
15-34	2.8	6.3	19.5	27.7
35-40	60.2	35.2	66.4	32.8
41+	35.6	56.2	9.7	28.0
Mean hours worked,				
1979	2,125.9	2,321.5	1,668.7	1,685.6
(SD)	560.9	801.2	655.7	939.5
Work in 1975				
Full-time	83.0	89.0	57.1	52.8
Part-time	6.5	5.2	16.7	24.1
Did not work	10.4	5.8	26.2	23.1
Location of work				
Home	0.6	5.9	1.0	20.3
On-site	99.4	94.1	99.0	79.7
Work disability				
Yes	4.5	6.3	3.1	5.0
No	95.5	93.7	96.9	95.0
Full-time year-round worker				
Yes	78.9	75.1	55.5	46.9
No	21.1	24.9	44.5	53.1
Metro residence				
In SMSA	82.5	79.0	83.5	79.8
Non-SMSA	17.5	21.0	16.5	20.2
Urban				
Central city	18.3	16.0	21.2	15.8
Non-central city	81.7	84.0	78.8	84.2
Area				
South	32.5	32.9	32.8	32.1
Non-south	67.5	67.1	67.2	67.9
SMSA unemployment rate	0.07	0.07	0.07	0.07
(SD)	0.02	0.02	0.02	0.02

SOURCE: *Public Use Microdata Samples* (*A*). U.S. Bureau of the Census (1983). Sample includes all civilian men and women aged 18-64 who worked as nonfarm wage and salary workers or nonfarm self-employed workers in 1979.
NOTE: SMSA = Standard Metropolitan Statistical Area.

research by considering the unique aspects of women's self-employment. To obtain a more detailed picture of the determinants of self-employment, separate logistic regression models are also run for each of four major occupational groups (executive, professional, sales and service).

Finally, to obtain an expanded description of the self-employed, a multinomial logit model with three outcome categories is estimated. The dependent variable is the log-odds that a self-employed person works for an unincorporated or an incorporated business versus being a wage and salary worker (2 = *incorporated business/employee of own corporation*, 1 = *unincorporated business*, 0 = *wage and salary work*). This approach is in contrast with past studies that did not differentiate between the two classes of self-employment (Borjas & Bronars, 1989; Brown, 1976) or studies that defined as self-employed only those persons who received no income from wages and salary (Moore, 1983). The latter operationalization excludes from study the self-employed whose businesses are incorporated. Since 1967, the U.S. Census and Current Population Survey began classifying the self-employed workers of incorporated businesses or "employees of own corporation" explicitly as wage earners.[6] Despite this differentiation, employees of their own corporation are conceptually similar to the self-employed whose businesses are unincorporated. They own all or most of the stock in a privately held corporation, and often consider themselves to be self-employed (Aronson, 1991).

The independent variables selected can be classified as those consistent with Knight's (1933) career theory of self-employment (i.e., age, education, and past work experience); and those considered to be indicators of Schumpeter's (1934) default path to self-employment (i.e., sex, race,[7] Hispanic ethnicity, immigrant status,[8] presence of a work-limiting health condition, residence in a Standardized Metropolitan Statistical Area [SMSA], and SMSA unemployment rate). As discussed earlier in this paper, age, education, and work experience are indicators of human capital, or indicators of the skills and experiences that make one capable of forming a successful business (Aronson, 1991, p. 23; Borjas & Bronars, 1989; Fain, 1980). Becoming self-employed requires accumulated experience, skills, and material resources. Because time is required to garner these assets, self-employment is expected to be more common among older workers, although workers nearing retirement may be reluctant to leave secure wage and salary work for the uncertainties of entrepreneurship (Becker, 1984).

Conversely, the variables race, immigrant status, Hispanic ethnicity, and disability status are expected to increase the odds of self-employment if Schumpeter (1934) and Phillips (1962) are correct in arguing that self-employment is a refuge for those who are prevented from securing productive

or profitable employment in the wage and salary sector. Similarly, unemployment rate is considered because the default theory of self-employment suggests that self-employment is a microlevel response by workers to economic duress (Steinmetz & Wright, 1989). Because SMSA-level unemployment rates are used in this analysis, an additional dummy variable indicating SMSA versus non-SMSA residents is necessary.[9]

A series of family characteristics are also included. As argued earlier, neither Schumpeter's (1934) nor Knight's (1933) model of self-employment offers an adequate explanation of women's self-employment. Given that women's work and family decisions are inextricably tied (Darian 1975; Loscocco & Leicht 1993; Sweet 1973), any theory of women's labor force participation must acknowledge that family characteristics differentially enhance and constrain men's and women's work decisions. Accordingly, marital status along with presence and ages of children (no children; ages 0-6 only; ages 6-17 only; ages 0-17) are considered as independent variables.

Finally, control variables are added for residence in a southern state and urban residence; these variables were included to account for regional differences in opportunity for small business growth. The "rural renaissance" of the 1970s was distinguished by a movement of Americans away from metropolitan areas and a mass migration to the South, which would likely create a demand for small business (Fuguitt, 1985).

Each of the variables is measured at the individual level, except unemployment rate, which is an area-level variable. The unemployment rate variable was created by matching the appropriate 1979 area unemployment rate to the person record. Although personal characteristics, tastes, whether one's parents were/are self-employed, whether one's spouse is self-employed, marketable job skills, and the availability of start-up capital may guide the decision to become self-employed (Carroll & Mosakowski, 1987; Fuchs, 1980), this paper will be limited to examining only those characteristics obtained in the 1980 U.S. Census: the demographic and human capital determinants of self-employment.

FINDINGS AND DISCUSSION

Self-employed and wage and salary workers differ in several major respects, as shown by the descriptive statistics in Tables 1 and 2. The self-employed American is typically white, older, and better educated than his/her salaried peers. On closer inspection, self-employed men have several characteristics that are associated with the marginality theory of entrepreneurship. Although 29% of self-employed men are high school dropouts, only

21% of male salaried workers have fewer than 12 years of schooling. This finding could reflect intercohort changes in levels of educational attainment. Given the fact that self-employment is more prevalent among older age cohorts who are also more likely to have completed fewer than 12 years of school, this pattern likely reflects the negative correlation between age and education. At the same time, however, nearly one third of self-employed men and 22% of self-employed women have at least a college education, and the figures for wage and salaried workers are 21% and 13%, respectively.

The hours and conditions under which the salaried and the self-employed work also differ in several respects. One of the most striking observations is that more than 20% of self-employed women work in their homes. This is in sharp contrast with the proportion of self-employed men (6%) and wage and salaried workers (< 1%) whose main place of employment is at home. Home-based work has been depicted as a way for women to work while caring for their families (Christensen, 1988; Kraut & Grambsch, 1987).

The work schedules of salaried and self-employed workers are also quite diverse. Roughly 40% of self-employed women work less than 35 hours per week, yet just 25% of the wage-earning women work part-time. The work schedules of self-employed men show great variety; although self-employed men are more likely than salaried men to work part-time (8.6% versus 4.2%), they are also more likely to work more than 40 hours per week (56% versus 36%).

The results suggest thus far that men's self-employment is a bimodal phenomenon, attracting the most educated and those investing the most hours per week in their careers, as well as those who turn to self-employment due to their limited education and/or poor health. For women, a different picture emerges; well-educated, married women who have limited past work experience appear to select self-employment as a flexible career option. Women's self-employment, therefore, cannot be succinctly described as a reaction to structural constraints or as a choice guided solely by the availability of skills and resources. Rather, women's self-employment decision reflects a combination of choice within structural constraints. The logistic regression results, shown in Table 3, offer support for these hypotheses.

The results in Table 3 display the marginal and adjusted odds of being self-employed (versus being a wage earner). The marginal odds show the proportion of persons in each sociodemographic category who are self-employed. The adjusted odds (exp β) are the odds of being self-employed relative to persons in the reference category, after controlling for a series of sociodemographic variables. Reference categories are bracketed in Tables 3-7, and the odds ratio for each equals 1.0. Because the variables of age, education, marital status, and presence and ages of children have significantly different effects ($p < .005$) on the odds of women's versus men's self-employment

TABLE 3: Logistic Regression Model of Self-Employment Versus Wage and Salary Employment in the United States, by Sex: 1980 ($N = 55,502$)

	Women			Men		
	Marginal Odds	Adjusted Odds	β/SE	Marginal Odds	Adjusted Odds	β/SE
Independent variables						
Age						
[18-24**]	1.3	1.00		14.9	1.00	
25-34	4.4	3.13	6.52	10.5	1.79	6.19
35-44	7.3	6.48	10.40	15.6	2.78	10.19
45-54	6.9	6.98	10.77	17.3	3.37	12.03
55-64	8.8	9.9	12.62	19.7	4.07	13.67
Race						
[White]	6.2	1.00		14.7	1.00	
Non-White	3.0	0.52	−4.78	7.4	0.51	−8.25
Ethnicity						
Hispanic	3.9	0.79	−1.00	8.9	0.87	−1.13
[Non-Hispanic]	5.8	1.00		14.2	1.00	
Civil status						
[Born in United Sates]	5.7	1.00		13.9	1.00	
Immigrant	6.4	1.32	2.03	14.3	1.24	2.64
Education						
< 12 years**	4.5	0.8	−2.38	12.4	0.99	−0.26
[12 years]	4.8	1.00		11.1	1.00	
13-15 years	6.4	1.58	6.1	13.4	1.35	6.38
16 years	8.6	2.33	8.59	15.2	1.49	7.39
17+ years	10.6	2.81	9.26	25.6	2.83	20.78
Work disability						
Yes	9.0	1.51	2.95	18.3	1.32	3.99
[No]	5.6	1.00		13.7	1.00	
Marital status						
[Never married**]	2.6	1.00		9.0	1.00	
Currently married	6.5	1.69	3.59	13.2	1.14	1.28
Divorced/separated/ widowed	4.7	1.18	1.03	14.4	1.18	2.09
Kids at home						
[None**]	6.1	1.00		15.7	1.00	
0-6 years only	4.5	1.45	2.81	9.7	0.94	−0.97
6-17 years only	6.2	1.04	0.48	15.5	1.03	0.58
0-17 years	7.1	1.66	4.10	13.9	1.18	2.60
Work in 1975**						
Full-time	5.3	0.89	−1.57	14.8	1.25	3.11
Part-time	8.1	1.34	3.39	11.3	1.37	3.25
[Did not work]	5.1	1.00		8.3	1.00	
South [vs. non-South]	5.6	1.09	1.41	14.1	1.08	2.27
Urban [vs. non-urban]	4.4	0.84	−2.11	12.4	0.96	−0.80
Metro [vs. non-SMSA]	5.3	0.76	−3.57	13.4	0.73	−7.43
Unemployment rate		0.99	−0.38		0.99	−1.63
Non-white immigrant*	4.0	0.72	−0.16	10.0	0.74	−1.00
Hispanic immigrant*	4.1	1.03	0.04	9.4	0.84	−1.35
Number of cases			22,403			33,099

SOURCE: Public Use Microdata Sample A.
NOTE: Sample includes all civilian men and women aged 18-64 who worked as nonfarm wage and salary workers or nonfarm self-employed workers in 1979. SMSA = Standard Metropolitan Statistical Area.* indicates an interaction effect.** indicates that a sex = interaction term for this variable was significant at the .005 level in a pooled model. Brackets indicate a reference group.

in a preliminary pooled model, separate logistic regression models are estimated for women and men.

FAMILY STRUCTURE VARIABLES

The odds of being self-employed are significantly affected by sex, age, ethnicity, marital status, age of children, and location of residence. As expected, family characteristics differentially constrain and enhance women's and men's employment choices: Being married and having pre-school children each has a large and positive effect on the odds of women's— but not men's—self-employment. Table 3 shows that currently married women are 1.7 times as likely as never-married women to work for themselves, yet the difference between never-married and currently married men is much smaller, with married men just 1.14 times more likely than never-married men to be self-employed. Economists have reasoned that self-employment is a more rational choice for married men because, unlike the unmarried, they can ensure against the risk of unreliable employees by hiring their spouses (Borjas, 1986). Although this assumption has not been held to empirical test, Borjas argued that this type of labor allocation within the family is "optimal because both self-employed workers will have identical incentives—the maximization of family income or self-employment profits—and the shirking problem is solved." Given that marriage has a much larger effect on women's self-employment than on men's, it is also possible that having a husband with steady earnings and benefits affords women a financial cushion that increases the chances of her starting her own business. In 1990, roughly 15% of self-employed women received health insurance through their own job, versus 70% of salaried women and 40% of self-employed men (Devine, 1994). Additional research is needed to examine the role of spouse and family members in self-employed businesses. Moreover, the financial contributions of each spouse to the total family income must be considered.

The presence and ages of children also have a markedly different effect on the odds that women and men will be self-employed. The adjusted odds ratios in Table 3 show that men with both preschool children and school-age children (age 0-17 years) are 18% more likely than men with no children at home to be self-employed. A strikingly different pattern emerges for women. Relative to women with no children, women with only preschool children (i.e., age 0-6 only) are 1.5 times as likely to work for themselves, while women with both preschool and school-age children (i.e., ages 0-17) are nearly 1.7 times as likely to be self-employed. Having only school-age children (i.e., ages 6-17 only) does not have a significant effect on the odds of women's self-employment relative to salaried work. This is consistent with

past findings that the constraint of children on women's participation in the traditional labor force decreases as children grow older; preschool age children require ongoing and close supervision, and school-age children do not require parental care during the school hours (Stolzenberg & Waite, 1984; Sweet, 1973). The positive effect of preschool children on women's self-employment is also consistent with the assertion of Connelly (1992) that self-employment is often a strategy for working mothers to combine family and work responsibilities. Women with preschool children may find that being their own boss allows them to earn money yet still fulfill family responsibilities. This general pattern persists even when analysis is limited to specific occupational groups. Tables 4 and 5 show the results of logistic regression analyses conducted for each of four occupational groups: executives, professionals, sales workers, and those employed in service occupations. These four groups were selected for further analysis because roughly two thirds of self-employed women and more than one half of self-employed men work in these occupations (Carr, 1993, p. 48). Across each of the four occupational groups, the presence of preschool children increases the odds that a woman will be self-employed, ranging from log odds of 1.3 among sales workers and executives to 1.7 among professionals. Having preschool age children does not significantly affect the odds that a man—regardless of occupational group—will be self-employed.

HUMAN CAPITAL VARIABLES

The monotonic effect of education supports the widely documented finding that both men and women with higher education are more likely to work for themselves. Even though men with less than a high school education are just about as likely as high school graduates to work for themselves, female high school dropouts are 20% less likely to work for themselves. Men and women with more than four years of college are almost three times as likely as high school graduates to be self-employed.

Age is also a powerful determinant of self-employment status, although analysis of cross-sectional data does not allow us to ascertain whether this effect is due to chronological age or unique attributes of the oldest age cohort in 1980. The odds of self-employment in 1980 increase monotonically with age, and the oldest male workers (ages 55-64) are more than four times as likely as 18- to 24-year-old males to work for themselves. Interestingly, this pattern is even more pronounced among women. Females in the oldest age group are 10 times as likely as 18- to 24-year-old women to be self-employed.

There are several possible explanations for this unexpected pattern. Labor force participation rates of older men dropped significantly between 1952

TABLE 4: Logistic Regression Model of Self-Employment Versus Wage and Salary Employment in the United States by Major Occupational Group, Women, 1980 (*N* = 22,403)

	Total exp (β)	Executive exp (β)	Professional exp (β)	Sales exp (β)	Service exp (β)
Independent variables					
Age					
[18-24]	1.00	1.00	1.00	1.00	1.00
25-34	**3.13**	**5.14**	1.43	**3.75**	**3.04**
35-44	**6.48**	**11.40**	**4.16**	**8.63**	**3.76**
45-64	**6.98**	**10.81**	**6.49**	**9.37**	**3.44**
55-64	**9.90**	**17.49**	**7.92**	**13.16**	**3.27**
Race					
[White]	1.00	1.00	1.00	1.00	1.00
Non-White	**0.52**	0.59	1.07	0.70	**0.42**
Ethnicity					
Hispanic	0.79	1.41	2.03	1.29	0.71
Non-Hispanic	1.00	1.00	1.00	1.00	1.00
Civil Status					
[Born in United Sates]	1.00	1.00	1.00	1.00	1.00
Immigrant	**1.32**	**2.18**	1.09	1.66	0.82
Education					
< 12 years	**0.80**	1.91	**1.55**	**0.72**	**0.78**
[12 years]	1.00	1.00	1.00	1.00	1.00
13-15 years	**1.58**	1.54	0.93	**2.25**	1.15
16 years	**2.33**	**1.74**	1.19	**3.30**	0.99
17+ years	**2.81**	**2.74**	0.98	**2.89**	0.86
Work disability					
Yes	**1.51**	**1.99**	1.37	**1.87**	**0.87**
[No]	1.00	1.00	1.00	1.00	1.00
Marital status					
[Never married]	1.00	1.00	1.00	1.00	1.00
Currently married	**1.69**	1.14	**1.62**	**2.21**	**2.51**
Divorced/separated/					
widowed	1.18	1.11	1.39	1.46	1.57
Kids at home					
[None]	1.00	1.00	1.00	1.00	1.00
0-6 years old	**1.45**	1.35	**1.69**	1.32	**1.63**
6-17 years old	1.04	0.81	**1.32**	1.03	0.93
0-17 years old	**1.66**	0.97	**2.49**	1.23	**1.76**
Work in 1975					
Full-time	0.89	0.88	0.78	**1.45**	**1.50**
Part-time	**1.34**	**1.80**	1.26	1.13	**1.71**
[Did not work]	1.00	1.00	1.00	1.00	1.00
South [vs. non-South]	1.09	1.21	**1.29**	0.98	**1.30**
Urban [vs. non-urban]	**0.84**	**1.41**	**0.69**	**0.56**	**0.63**
Metro [vs. non-SMSA]	**0.76**	1.24	**0.68**	**0.62**	0.98
Unemployment rate	0.99	1.03	1.01	0.98	0.98
Non-white immigrant*	0.72	0.44	1.21	1.23	0.56
Hispanic immigrant*	1.03	4.26	1.10	2.74	0.75
Number of cases	22,403	2,283	1,928	2,655	3,222

NOTE: SMSA = Standard Metropolitan Statistical Area. Bold-face indicates that β coefficient is significant at the .05 level. Results show log odds relative to reference group.* indicates an interaction effect. Brackets indicate reference categories.

TABLE 5: Logistic Regression Model of Self-Employment Versus Wage and Salary Employment in the United States by Major Occupational Group, Men, 1980 (N = 33,099)

	Total exp (β)	Executive exp (β)	Professional exp (β)	Sales exp (β)	Service exp (β)
Independent variables					
Age					
[18-24]	1.00	1.00	1.00	1.00	1.00
25-34	**1.79**	1.34	**1.62**	1.35	1.63
35-44	**2.78**	**1.91**	**2.46**	**2.45**	**3.25**
45-64	**3.37**	**2.75**	**2.84**	**3.20**	**2.47**
55-64	**4.07**	**4.54**	**3.22**	**4.43**	**2.49**
Race					
[White]	1.00	1.00	1.00	1.00	1.00
Non-White	**0.51**	**0.65**	0.71	0.74	0.65
Ethnicity					
Hispanic	0.87	1.32	0.81	1.26	0.58
[Non-Hispanic]	1.00	1.00	1.00	1.00	1.00
Civil status					
[Born in United Sates]	1.00	1.00	1.00	1.00	1.00
Immigrant	**1.24**	0.93	**1.81**	**1.68**	1.31
Education					
< 12 years	0.99	**1.53**	**1.54**	**1.46**	0.90
[12 years]	1.00	**1.00**	**1.00**	**1.00**	1.00
13-15 years	**1.35**	**0.95**	**0.85**	**1.31**	1.44
16 years	**1.49**	1.02	0.89	1.04	0.47
17+ years	**2.83**	**3.92**	**0.56**	**1.42**	**2.75**
Work disability					
Yes	**1.32**	0.87	1.16	**1.68**	1.38
[No]	1.00	1.00	1.00	1.00	1.00
Marital status					
[Never married]	1.00	1.00	1.00	1.00	1.00
Currently married	1.14	1.08	1.18	1.33	1.59
Divorced/separated/					
widowed	**1.18**	1.35	1.23	1.13	1.24
Kids at home					
[None]	1.00	1.00	1.00	1.00	1.00
0-6 years only	0.94	1.09	0.93	1.18	1.11
6-17 years only	1.03	1.11	1.11	1.16	**1.48**
0-17 years	**1.18**	**1.52**	1.22	1.28	0.55
Work in 1975					
Full-time	**1.25**	**1.48**	1.21	1.19	1.25
Part-time	**1.37**	**1.49**	0.92	1.22	1.15
[Did not work]	1.00	1.00	1.00	1.00	1.00
South [vs. non-South]	**1.08**	1.15	0.90	0.96	1.07
Urban [vs. non-urban]	0.96	**1.20**	**1.09**	**0.82**	**0.65**
Metro [vs. non-SMSA]	**0.73**	**0.72**	**0.69**	**0.66**	0.70
Unemployment rate	0.99	**1.04**	**0.95**	1.01	**1.11**
Non-white immigrant*	0.74	0.60	1.74	2.47	0.31
Hispanic immigrant*	0.84	1.67	1.34	1.35	0.00
Number of cases	33,099	3,372	4,963	3,639	1,327

NOTE: SMSA = Standard Metropolitan Statistical Area. Bold-face indicates that β coefficient is significant at the .05 level. Results show log odds relative to reference group.* indicates an interaction effect. Brackets indicate a reference group.

and 1982, and older wives may continue to work to supplement the family income. Current Population Survey data show that the labor force participation rate for husbands aged 65 and older dropped from 48% in 1952 to 19% in 1982. Corresponding rates for husbands aged 55 to 64 years of age were 89% and 71%, respectively (Waldman, 1983). Alternatively, it is possible that high rates of self-employment among older women reflect the same cohort changes in nonfarm self-employment that are evident among men. Older women may be self-employed in the same businesses as their husbands or may take over the businesses of their deceased or retired husbands. Herz (1988) reports that self-employed women may continue working later in life due to low earnings and lack of pension coverage.

CONSTRAINT VARIABLES

My analysis thus far supports the career theory of self-employment and replicates the past finding that the accrual of human capital and life experience increases the odds of self-employment (Borjas, 1986; Fuchs, 1980). The data also offer limited support for the default hypothesis; part-time (versus full-time) work experience in 1975, having a disability, and being an immigrant increase the probability of individual self-employment. Having a disability also increases the odds of self-employment relative to wage work; both men and women with a work-limiting health condition are 1.4 times as likely as those without a disability to be self-employed.

Past work experience has very different effects on men's and women's chances of being self-employed. Men who worked part-time in 1975 are slightly more likely than 1975 full-time workers to be self-employed in 1980, yet both are 25%-40% more likely than those with no 1975 work experience to be self-employed in 1980. A different picture emerges for women, however; women who worked part-time in 1975 are 34% more likely, yet those who worked full-time in 1975 are 10% less likely, than nonworkers in 1975 to be self-employed in 1980. This general pattern holds for women executives, professionals, and service workers, as revealed in Table 4. This is consistent with my hypothesis that extensive career experience may not be necessary for women's self-employment in 1980, given that the majority of these women were employed in retail sales and service occupations, including child care workers and hairdressers/cosmetologists—occupations where work experience may not be vital for job entry (Aronson, 1991; Connelly, R., 1992).

The data also offer mixed support for the argument that immigrants and ethnic minorities turn to self-employment as a mechanism to circumvent discriminatory practices in the wage labor force. For white immigrants,

self-employment is a strategy for upward mobility; they are 30%-40% more likely than American-born whites to have their own businesses. African Americans and Hispanics, both native born and immigrants, are significantly less likely than whites to work for themselves, with similar effects for both men and women.

COMPARING CLASSES OF SELF-EMPLOYMENT

The logistic regression analyses reveal that the odds of being self-employed are increased by both human capital characteristics (e.g., age and education) and characteristics that typically constrain one's labor force options (e.g., disability, immigrant status). In an effort to better evaluate the merits of the default and career theories of unemployment, the analysis will now move beyond the contrast of all self-employed versus wage and salary workers to a review of the results of a multinomial logit model in which self-employment in an incorporated business and self-employment in an unincorporated business are each contrasted with traditional wage and salary sector employment. The marginal odds show the proportion of persons in each sociodemographic category who work in either an incorporated or unincorporated self-employed business, relative to wage and salary work. The adjusted odds (exp β) are the odds of being self-employed (either incorporated or unincorporated) versus being a wage and salary worker, the reference category in both cases.

The multinomial regression results suggest that the determinants of self-employment are not as simplistic as early theories might have suggested. Results in Tables 6 and 7 offer only limited evidence for the possibility that self-employment in an incorporated business is a proxy for self-employment as a career or that self-employment in an unincorporated business is a proxy for self-employment as a default career choice. The results in Tables 6 and 7 show that higher education has a positive influence on the choice of either type of self-employment versus salaried work. The self-employed in unincorporated businesses are more likely than salaried workers to have part-time rather than full-time work experience and to have a disability. A male high school dropout is more likely than a male high school graduate to have his own unincorporated business. Moreover, although having a work-limiting health condition makes both men and women much more likely to be self-employed in an unincorporated business relative to salaried work, this is not true of self-employment in an incorporated business. The effect of past work experience also differs for the two classes of self-employment. Men who worked part-time in 1975 are more likely than those with no 1975 work experience to have their own unincorporated businesses in 1980, yet those with full-time work experience are no more likely than those with no 1975

TABLE 6: Multinomial Logit Model of Men's Self-Employment in an Unincorporated or Incorporated Business Versus Wage and Salary Employment in the United States: 1980 (N = 33,099)

	Self-Employment in an Unincorporated Business Versus Wage/Salary Work			Self-Employment in an Incorporated Business Versus Wage/Salary Work		
	Marginal Odds	Adjusted Odds	b/SE	Marginal Odds	Adjusted Odds	b/SE
Independent variables						
Age						
[18-24]	3.67	1.00		1.29	1.00	
25-34	7.74	1.93	5.96	3.26	1.52	2.29
35-44	10.99	2.86	8.86	5.71	2.64	5.13
45-54	12.06	3.25	10.02	6.77	3.51	6.62
55-64	14.75	4.17	11.96	6.74	3.73	6.81
Race						
[White]	10.50	1.00		5.19	1.00	
Non-White	5.67	0.54	−6.64	1.99	0.42	−5.17
Ethnicity						
Hispanic	7.08	1.01	0.02	2.06	0.52	−2.33
[Non-Hispanic]	10.17	1.00		4.99	1.00	
Civil status						
Born in United States	10.02	1.00		4.78	1.00	
Immigrant	9.72	1.15	1.42	5.58	1.42	2.84
Education						
< 12 years	10.19	1.12	2.02	2.67	0.68	−4.12
[12 years]	8.15	1.00		3.53	1.00	
13-15 years	9.02	1.20	3.30	5.32	1.71	6.89
16 years	9.19	1.19	2.57	7.25	2.21	9.45
17+ years	18.78	2.69	10.88	10.17	3.15	13.93
Work disability						
Yes	15.09	1.49	5.21	4.45	0.91	−0.66
[No]	9.75	1.00		4.85	1.00	
Marital status						
[Never married]	6.96	1.00		2.35	1.00	
Currently married	10.28	1.09	0.9	5.14	1.48	2.58
Divorced/separated/						
widowed	10.06	1.12	1.02	3.84	1.17	0.85
Kids at home						
[None]	10.38	1.00		4.72	1.00	
0-6 years only	6.83	0.91	−1.20	3.35	1.00	−0.02
6-17 years only	10.88	1.02	0.30	5.79	1.04	0.47
0-17 years	10.10	1.18	2.26	4.72	1.15	1.34
Work in 1975						
Full-time	10.48	1.12	1.40	5.35	1.67	3.69
Part-time	9.31	1.43	3.39	2.46	1.14	0.66
[Did not work]	6.48	1.00		2.07	1.00	
South [vs. non-South]	10.39	1.10	2.29	4.58	1.04	.70
Urban [vs. non-urban]	8.81	0.98	−0.56	4.48	0.96	−0.57
Metro [vs. non-SMSA]	9.37	0.66	−8.59	4.92	0.95	−0.68
Unemployment rate		0.99	−1.26		0.98	−1.10
Non-White immigrant*	7.32	0.71	−0.71	3.37	0.79	0.97
Hispanic immigrant*	8.96	.84	−1.50	4.33	0.84	0.36
Number of cases			3,166			1,448

SOURCE: *Public Use Microdata Samples (A).*
NOTE: Sample includes all civilian men and women age 18-64 who worked as nonfarm wage and salary workers or nonfarm self-employed workers in 1979. SMSA = Standard Metropolitan Statistical Area. * indicates an interaction effect. Brackets indicate a reference group.

TABLE 7: Multinomial Logit Model of Women's Self-Employment in an Unincorporated or Incorporated Business Versus Wage and Salary Employment in the United States: 1980 (N = 22,403)

	Self-Employment in an Unincorporated Business Versus Wage/Salary Work			Self-Employment in an Incorporated Business Versus Wage/Salary Work		
	Marginal Odds	Adjusted Odds	β/SE	Marginal Odds	Adjusted Odds	β/SE
Independent variables						
Age						
[18-24]	1.15	1.00		0.14	1.00	
25-34	3.79	3.22	6.12	0.67	3.54	2.38
35-44	5.44	5.71	8.82	2.12	12.55	4.77
45-54	5.47	6.35	9.43	1.57	12.10	4.69
55-64	6.73	8.33	10.62	2.34	23.10	5.89
Race						
[White]	4.87	1.00		1.62	1.00	
Non-White	2.40	0.52	−4.35	0.65	0.66	−1.5
Ethnicity						
Hispanic	2.94	1.00	0.02	0.76	0.37	−1.4
[Non-Hispanic]	4.61	1.00		1.36	1.00	
Civil status						
[Born in United States]	4.50	1.00		1.46	1.00	
Immigrant	4.94	1.35	1.97	1.59	1.38	1.22
Education						
< 12 years	3.96	0.96	−0.39	0.61	0.40	−4.05
[12 years]	3.63	1.00		1.30	1.00	
13-15 years	5.01	1.62	5.62	1.53	1.48	0.03
16 years	6.55	2.26	7.28	2.32	2.53	4.98
17+ years	9.17	3.08	9.25	1.73	1.80	2.27
Work disability						
Yes	8.22	1.76	3.93	0.91	0.67	−0.96
[No]	4.41	1.00		1.34	1.00	
Marital status						
[Never married]	2.31	1.00		0.28	1.00	
Currently married	5.05	1.53	2.71	1.61	3.23	2.76
Divorced/separated/ widowed	3.83	1.16	0.88	0.89	1.64	1.10
Kids at home						
[None]	4.43	1.00		1.17	1.00	
0-6 years only	3.77	1.41	2.35	0.81	1.66	1.63
6-17 years only	4.64	0.96	−0.51	1.73	1.38	1.99
0-17 years	5.82	1.64	3.66	1.41	1.88	2.34
Work in 1975						
Full-time	4.01	0.84	−2.10	1.45	1.16	0.95
Part-time	7.01	1.49	4.19	1.26	0.89	−0.61
[Did not work]	4.05	1.00		1.13	1.00	
South [vs. non-South]	4.46	1.11	1.39	1.27	1.00	0.01
Urban [vs. non-urban]	3.54	0.86	−1.63	0.89	0.72	−1.84
Metro [vs. non-SMSA]	4.29	0.72	−3.95	1.33	0.99	−0.06
Unemployment rate		1.00	0.18		0.96	−1.19
Non-White immigrant*	3.29	0.80	0.44	1.02	0.48	−1.03
Hispanic immigrant*	4.44	0.85	−1.19	1.23	1.72	1.42
Number of cases			1,003			285

SOURCE: *Public Use Microdata Samples (A)*.
NOTE: Sample includes all civilian men and women age 18-64 who worked as nonfarm wage and salary workers or nonfarm self-employed workers in 1979. SMSA = Standard Metropolitan Statistical Area. * indicates an interaction effect. Brackets indicate a reference group.

work experience to be self-employed with an unincorporated business. Conversely, men who worked full-time in 1975 are 70% more likely than nonworkers in 1975 to have their own corporations in 1980. These results suggest that men with limited work experience and health problems may default to self-employment, but they are defaulting to self-employment in an unincorporated business only. For men, then, characteristics associated with constraints to traditional wage and salary employment increase the likelihood of being self-employed in an unincorporated business. Both men and women who work for their own corporations are more highly educated than wage workers and are less likely to be disabled, Hispanic, or Black.

The traditional theories of entrepreneurship are not well suited to describe women's self-employment, however. Incorporation status does not provide an appropriate test for default versus choice as a theory of women's self-employment. Advanced education is positively associated with both classes of self-employment for women. Although part-time work experience in 1975 increases the odds that a woman will be self-employed in an unincorporated business, past work experience has no effect on the odds that a woman will work for her own corporation. Rather, family structure variables must be considered when examining women's self-employment; being married and having preschool children have large and significant effects on the odds that women will choose either variant of self-employment over wage and salary work. It appears that self-employment, either incorporated or unincorporated, is a strategy for women to circumvent the constraints that their child care needs may place on their traditional wage labor force participation. At the same time, self-employment is not an option readily available to all women. Personal resources, such as education and the financial security of having a spouse, appear to be prerequisites for a woman to select this flexible work strategy. Therefore, women's self-employment decisions do not comply neatly with either Schumpeter's (1934) or Knight's (1933) theory. Although women with preschool-age children may be constrained from securing wage and salary employment, only those with the advantages of education and spousal income are afforded the choice of self-employment.

CONCLUSIONS

The main purpose of this paper was to contrast the characteristics of the male and female self-employed and to consider whether either the default or career theory of self-employment is appropriate to explain the determinants of women's self-employment. Neither theory, as originally formulated, provides an adequate or complete theory of women's self-employment. Rather, family characteristics—especially having young children (which constrains

women's workforce options) and marital status (which facilitates women's self-employment decision)—are the strongest predictors of women's self-employment. Human capital characteristics, however, are the strongest predictors of men's self-employment. Although several characteristics associated with Schumpeter's (1934) default model predict self-employment, a closer inspection reveals that these characteristics (limited past work experience, disability, immigrant status) predict men's self-employment in unincorporated businesses only. We cannot conclude with certainty, however, that men "choose" to be self-employed in incorporated businesses and default to unincorporated self-employment. Incorporation status, as noted earlier, is a very weak proxy for skilled versus unskilled self-employment.

Overall, Knight's (1933) career theory emerges as the better explanation of men's and women's self-employment; advanced age and education, as hypothesized, are shown to be strong determinants of both women's and men's self-employment relative to wage-and-salaried work. These results do not necessarily confirm the findings of past researchers that advanced chronological age, and the work experience this age often carries, is a determinant of self-employment. Rather, future research must rely on longitudinal data to determine how men's and women's entrances to, and exits from, self-employment vary over the life course. It is crucial to examine whether past analyses of cross-sectional data have truly reflected age, rather than period or cohort effects.

Moreover, the relationship between age and probability of self-employment can be better understood by examining cohort differences in industry and occupation categories. It is expected that the most recent entrants to self-employment are white-collar professional workers, and older cohorts of nonfarm self-employed workers are clustered in crafts and manufacturing occupations. The large and significant effect of education on the odds of being self-employed is expected to persist in the future as more white-collar professionals—many the victims of corporate layoffs in the 1980s and 1990s—form their own businesses. Ironically, these well-educated workers may actually turn to self-employment as a default career choice; many of these newly self-employed "consultants" find their earnings to be significantly less than those earned at their former salaried occupations (Uchitelle, 1993). In the past decade, increasing numbers of corporations began to outsource work to "home workers", "independent contractors" and "freelancers": individuals who may be labeled self-employed by censuses and tax records but who actually have little autonomy or control over what they produce or how they produce it (Christensen, 1988; Dale, 1986).

Despite the numerous similarities between the male and female self-employed, two distinct differences exist: past work experience and family

structure. Women who did not work or who worked only part-time in 1975 are shown to be more likely than 1975 full-time workers to be self-employed five years later. Men who worked part-time or full-time in 1975 are more likely than the 1975 nonworking to be self-employed after the same period of time. Given the recent rise in white-collar self-employment due to corporate layoffs and outsourcing, however, it seems likely that full-time work experience will be a prerequisite for both men's and women's self-employment in future years.

Finally, family characteristics must be considered when evaluating explanations of women's self-employment. The fact that women with preschool children are more likely than the childless or the mothers of school-age children to be self-employed provides empirical support for the hypothesis that self-employment resembles shift work and part-time work in that it is a strategy for working women to combine home and work responsibilities. To date, there has been only suggestive evidence that self-employment provides an avenue for women who want to or need to work yet must also balance the demands of family. Earlier research by Pleck, Staines, and Lang (1980) showed results from a national survey of workers, in which women more often than men reported schedule incompatibility between work and family, yet women's self-employment was unrelated to work-family conflicts. Self-employment does not appear to be an option available to all mothers who are prevented from taking full-time salaried work, however; the additional advantages of advanced education and the benefits of a spouse's income provide the necessary capital for a woman to form her own business.

The story of women's self-employment does not end here, however. Future research must consider spouses' joint employment decisions and the duration of women's self-employment. It is quite possible that husbands and wives working together in a family-owned business or that having a spouse who is employed at a stable, well-paying job offers greater latitude for one to take the risk of starting one's own business. The large and significant effect of age on women's self-employment also raises questions about the relationship between spousal retirement and a woman's work in her own business. Moreover, if a woman's entrance to self-employment is conditioned by family responsibilities, does she exit self-employment when her children are grown, or does she parlay her initial investment into a long-term career? Does experience obtained in the self-employed workforce carry over into the traditional salaried workforce, in terms of tenure and earnings for women?

By further examining such questions, the sociological study of women's labor force participation can be enhanced. Structured interviews with self-employed women could capture their motivations for forming their own businesses and their reasons for accepting low earnings for full-time work

(Aronson, 1991). An examination of self-employed women's strategies for determining their fees and payment structures may also offer some insights into their earnings disadvantage. Although the present analysis of census data cannot answer such questions, it has provided some insights into the status of the self-employed, based on sex and incorporation status.

NOTES

1. This analysis used 1980 U.S. Census data because 1990 data were not yet available at the time the project began. Analysis of the 1980 data is crucial for two reasons: First, it represents the first census taken after the monotonic increase in self-employment rates began in the 1970s. Secondly, this analysis provides a baseline for the study of self-employment in the 1980s and offers a point of departure for examining the 1990 U.S. Census data.

2. Although data on total household income are available in the PUMS data, this is not used as an independent variable in the analysis. A woman's decision to be self-employed might be jointly determined with husband's income.

3. Past work experience is operationalized as whether the respondent worked part-time in 1975, worked full-time in 1975, or did not work in 1975. The more traditional approximation of one's labor force experience—age minus years of schooling minus six years—is not appropriate in a model attempts to measure men's and women's career experiences. Salvo and McNeil (1984) have concluded that women have much more disjointed career trajectories than men and that this disparity is exacerbated for married women and mothers. Therefore, a less precise, yet presumably less gender-biased, measure of workforce experience is included in the model.

4. The frequently documented finding that advanced chronological age has a positive effect on self-employment may reflect intercohort changes in the prevalence of self-employment. In other words, it is possible that older men are overrepresented among the self-employed simply because self-employment was more prevalent in the earlier decades when they began their careers. The bulk of research on the recent increase in self-employment rates has been conducted in the 1970s, and older chronological age in such studies may simply reflect older cohorts born prior to 1920. This assertion cannot be tested in the present cross-sectional data; future research should examine longitudinal data on the self-employment experience.

5. The following occupations are the most commonly held jobs by male and female nonfarm self-employed full-time year-round workers, based on incorporation status. The 1:100 1980 PUMS was used to calculate the following listings, and the occupations are defined by the three-digit census occupational codes (complete occupation and industry distributions available from author).

Males, unincorporated: Managers and administrators, not elsewhere classified (nec); carpenters; supervisors and proprietors, sales; lawyers; truck drivers; supervisors, electricians; automobile mechanics; painters, construction, and maintenance; real estate sales occupations; and physicians.

Males, incorporated: Managers and administrators, nec; supervisors and proprietors, sales; construction trades supervisors; physicians; sales reps, mining, manufacturing, wholesale; real estate sales occupations; supervisors, production occupations; lawyers; managers, marketing, advertising, public relations.

Females, unincorporated: Hairdressers and cosmetologists; managers and administrators, nec; child care workers; teachers, nec; real estate sales occupations; sales workers, other

commodities; street and door-to-door vendors; bookkeepers and accounting clerks; designers; painters, sculptors.

Females, incorporated: Managers and administrators, nec; bookkeepers; secretaries; supervisors and proprietors, sales; real estate sales occupations; sales workers, other commodities; general office clerks; hairdressers and cosmetologists; cashiers.

6. This method of measuring self-employment is potentially inaccurate. Census respondents who report that they are self-employed are then asked whether their business is incorporated or not. Respondents who initially reported that they were wage and salary workers of private companies, however, were not subsequently asked whether they own the business. This asymmetry may lead to the misclassification of some self-employed workers in incorporated businesses as wage and salary workers.

The potential asymmetry in reporting class of worker status is not expected to be problematic in the present analysis. Haber, Lamas, and Lichtenstein (1987) compared estimates of the proportion reporting self-employment status in the *Current Population Survey* (CPS) and the *Survey of Income and Program Participation* (SIPP) and found few differences. In SIPP, all business owners are identified, whether or not they own incorporated businesses or "side" (unincorporated) businesses. The authors reported that 7.4% and 7.8%, respectively, of the employed report self-employment in unincorporated businesses in SIPP and CPS. From the SIPP data, they found that an additional 2.6% operate incorporated businesses, and the comparable CPS figure is 2.7%.

7. Race is coded into a dichotomous variable, wherein nonwhite equals 1, and white is the reference group. Of the 12% of sample respondents who are not white, roughly three quarters are Black. Although Asians and Blacks have been shown to have very different work histories and propensities towards self-employment (Boyd 1991; Zhou & Logan 1989), separate categories are not created for the two groups. Rather, the categories are grouped together for the purpose of sample size and parsimony, and interaction terms are added to represent nonwhite immigrants and Hispanic immigrants.

8. Hispanic ethnicity, regardless of race, is coded as 1. Immigrant status is also a dichotomous predictor variable and is derived from the census question regarding year of immigration. Individuals born in the United States or born abroad of American parents are the reference group. The year of immigration is not included in the analysis; rather, we are interested simply in whether or not the person immigrated to the United States.

9. The unemployment rates were obtained from the U.S. Department of Commerce (1982). For the New England states, however, New England County Metropolitan Area unemployment rates are matched to the corresponding Standard Metropolitan Statistical Area (SMSA) code. For the 32% of the sample who do not reside in SMSAs, the 1979 national unemployment rate of 7.1 is assigned as a proxy rate. The dummy variable for SMSA residence carries the effect of differences in self-employment between the actual rate and that expected from the national unemployment rate of 7.1%.

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